AMENDMENT TO THE CLAIMS

1. (Currently Amended) A reverse data rate controlling method in a data communication system between an access network (AN) and ~~the~~ ATs, comprising the steps of:

transmitting data at initial reverse data rates to the AN;

receiving a message including ignore RAB (Reverse Activity Bit) information indicating whether the ATs should not change the reverse data rates from the AN in at least one AT;

receiving a RAB indicating increase or decrease of the reverse data rates from the AN; and

ignoring the RAB in the at least one AT received the ignore RAB information.

2. (Original) The reverse data rate controlling method of claim 1, wherein the ignore RAB information is included in an RRL (Reverse Rate Limit) message.

3. (Currently Amended) A reverse data rate controlling method in an AT in a mobile communication system, comprising the steps of:

establishing a reverse link with initial values, receiving an RRL (Reverse Rate Limit) message on a forward link and storing a value of an ~~the~~ ignore RAB field included in the RRL message;

determining a reverse data rate by comparing a current data rate with a data rate set in the RRL message and transmitting packet data at the determined reverse data rate; and

changing the reverse data rate according to the value of the ignore RAB field upon receipt of an RAB on the forward link.

4. (Original) The reverse data rate controlling method of claim 3, wherein if the reverse data rate decrease is requested and the ignore RAB field indicates neglect of the RAB, the reverse data rate decrease is not performed.

5. (Original) The reverse data rate controlling method of claim 4, wherein if the reverse data rate decrease is requested and the ignore RAB does not indicate neglect of the RAB, the reverse data rate is decreased unless the reverse data rate is the lowest data rate.

6. (Currently Amended) A reverse data rate controlling method in an AN in a mobile communication system, comprising the steps of:

analyzing the characteristics of an AT or a service in an initialization state for the AT and setting a MAC index for the AT on a forward MAC channel;

setting an ignore RAB field if a predetermined data rate must be maintained according to the characteristics of an AT or a service ; and

assembling an RRL message with the ignore RAB field and transmitting the RRL message to the AT.

7. (Original) The reverse data rate controlling method of claim 6, wherein if the AT is one of a premium AT and an emergency AT, the ignore RAB field is set.

8. (Original) The reverse data rate controlling method of claim 6, wherein if the service is one of a high quality data service and a real time data service, the ignore RAB field is set.

9. (Original) A reverse data rate controlling method in a plurality of ATs in a data communication system between an AN and the ATs, comprising the steps of:

receiving an RAB indicating increase or decrease of reverse data rates from the AN during transmitting data at the reverse data rates to the AN;

comparing access probabilities corresponding to the reverse data rates with random numbers generated in the ATs; and

increasing the reverse data rates for the respective ATs and determining the data rate according to the comparison result and transmitting data at the determined increased data rates.

10. (Currently Amended) The reverse data rate controlling method of claim 9, wherein the ATs Ats receive different access probabilities for different reverse data rates by an RRL message on a forward link.

11. (Currently Amended) The method of claim 9, wherein the ATs establish the access probabilities, which are different access probabilities probiabilities for different reverse data rates, as initial values.

12. (Original) The method of claim 9, wherein said data rate determination is selected under power limitation of the AT.

13. (Original) A reverse data rate controlling method in an AT in a mobile communication system, comprising the steps of:
establishing a reverse link with initial values, receiving an RRL message on a forward link, and storing access probabilities for data rates;
determining a reverse data rate by comparing a current data rate with a data rate set in the RRL message and transmitting packet data at the determined reverse data rate; and
changing the reverse data rate according to the access probabilities based on the received data rate upon receipt of a RAB on the forward link.

14. (Original) The reverse data rate controlling method of claim 13, wherein if the reverse data rate decrease is requested, a random number is generated, the random number is compared with the access probability for the current data rate, and the current data rate decrease if the comparison result satisfies a decrease condition.

15. (Original) The reverse data rate controlling method of claim 14, wherein if the reverse data rate decrease is requested, a random number is generated, the random number is compared with the access probability for the current data rate, and the current data rate is kept if the comparison result does not satisfies a decrease condition.

16. (Currently Amended) The reverse data rate controlling method of claim 13, wherein if the reverse data rate increase is requested, a data rate higher than the current data rate, but below the data rate set in the RRL message, is selected, a probability value of the selected data rate is compared with the random number, and if the comparison result satisfies an increase condition, the current data rate is increased to the selected data rate.

17. (Original) The reverse data rate controlling method of claim 16, wherein if the current data rate is the data rate set in the RRL message, the random number is not compared with the access probability.

18. (Original) The reverse data rate controlling method of claim 13, wherein if the reverse data rate increase is requested, data rates higher than the current data rate are selected sequentially in a descending order beginning from the data rate set in the RRL message, a random number is generated for each selected data rate, the access probability of the selected data rate is compared with the random number, and if the comparison result satisfies an increase condition, the current data rate is increased to the selected data rate.

19. (Currently Amended) A reverse data rate controlling method in a mobile communication system for transmission of packet data, comprising the steps of:

analyzing the characteristics of an AT or a service in an initialization state for the AT and setting a MAC index for the AT on a forward MAC channel;

generating an access probability for each data rate according to an the AT type or the service characteristic; and

assembling an RRL message with the access probabilities and transmitting the RRL message to the AT.

20. (Original) The reverse data rate controlling method of claim 19, wherein if the AT is one of a premium AT and an emergency AT, a higher access probability is set for a higher data rate.

21. (Original) The reverse data rate controlling method of claim 19, wherein if the service is one of a high quality data service and a real time data service, a higher access probability is set for a higher data rate.

22. (Original) The method of claim 19, wherein the access probability for each data rate is broadcasted on a common channel.

23. (Original) The method of claim 19, wherein the access probability for each data rate is transmitted to each AT on a traffic channel.

24. (Original) In an access terminal (AT) apparatus for transmitting reverse packet data in a mobile communication system, a control procedure performed when transmitting the reverse packet data in the AT apparatus comprising the steps of:

establishing a reverse link with initial values, receiving an RRL (Reverse Rate Limit) message on a forward link, analyzing an ignore RAB field, and storing the value of the ignore RAB field;

determining a reverse data rate by comparing a current data rate with a data rate set in the RRL message and transmitting packet data at the determined reverse data rate; and

changing the reverse data rate according to the value of the ignore RAB field upon receipt of an RAB on the forward link.

25. (Currently Amended) In an access network (AN) apparatus for transmitting reverse packet data in a mobile communication system, a control procedure performed when transmitting the reverse packet data in the AN apparatus comprising the steps of:

analyzing ~~the~~ characteristics of an AT or a service in an initialization state for the AT and setting a MAC index for the AT on a forward MAC channel;

setting an ignore RAB field if a predetermined data rate must be maintained according to the AT or the service characteristic; and

assembling an RRL message with the ignore RAB field and transmitting the RRL

message to the AT.

26. (Original) In an access terminal (AT) apparatus for transmitting reverse packet data in a mobile communication system, a control procedure performed when transmitting the reverse packet data in the AT apparatus comprising the steps of:

establishing a reverse link with initial values, receiving an RRL message on a forward link, and storing access probabilities for data rates;

determining a reverse data rate by comparing a current data rate with a data rate set in the RRL message and transmitting packet data at the determined reverse data rate; and

changing the reverse data rate according to the access probabilities upon receipt of a RAB on the forward link.

27. (Currently Amended) In an access network (AN) apparatus for transmitting reverse packet data in a mobile communication system, a control procedure performed when transmitting the reverse packet data in the AN apparatus comprising the steps of:

analyzing a ~~the~~ type of an AT and ~~the~~ characteristics of a service in an initialization state for the AT and setting a MAC index for the AT on a forward MAC channel;

generating an access probability for each data rate according to the characteristics of an AT or a service; and

assembling an RRL message with the access probabilities and transmitting the RRL message to the AT.